

**Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services**

STATEMENT OF BASIS

**Rubicon LLC
Rubicon LLC - Geismar Plant
Geismar, Ascension Parish, Louisiana
Agency Interest Number: 1468
Activity Number: PER20080028
Proposed Permit Number: 2420-V2**

I. APPLICANT

Company:

Rubicon LLC
PO Box 517
Geismar, Louisiana 70734-0517

Facility:

Offsites, Rubicon LLC
9156 Hwy 75
Geismar, Ascension Parish, Louisiana
Latitude 30 Deg 12 Min 05 Sec
Longitude 91 Deg 0 Min 41 Sec

II. FACILITY AND CURRENT PERMIT STATUS

Rubicon, LLC is a chemical manufacturer of a variety of organic and inorganic chemicals at their Geismar Facility and has been in operation since 1966. Currently the Offsites Area operates under permit No. 2420-V1, issued on December 21, 2007.

Rubicon, LLC - Geismar Plant is a designated Part 70 source. Several Part 70 permits have been issued to the operating units within the Geismar. These include:

Permit No.	Unit or Source	Date Issued
2261-V3	Aniline Complex	July 9, 2008
2391-V8	MDI Plant	December 17, 2008
2010-V0	Polyols Plant	April 18, 2005
2278-V1	Reduction Plant	December 19, 2008
2420-V1	Offsites Area	December 21, 2007
3037-V1	Maleic Anhydride Plant	August 13, 2008

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III. PROPOSED PROJECT/PERMIT INFORMATION

Application

A permit application dated December 19, 2008, was submitted requesting a Part 70 operating permit renewal/modification

Project

Rubicon requested a renewal/modification of the Part 70 Operating Permit No. 2420 - V1 as required by Louisiana Administrative Code (LAC) 33:III.507.E.

In this renewal/modification, Rubicon requested the following changes:

1. Revisions to the insignificant activity and General Condition XVII Activities concerning the deepwells (work overs and tubing replacement) with updated engine manufacturer's pollutant emissions factor and increasing the number of activities/yr to account for each well.
2. Deletion of Insignificant Activities RU (HCl Tank MS-8224) and RQ, RS, and RR (MDI 1, 2, and 3 Emergency Diesel Storage Tanks).
3. Replacement in kind of the inner tank of MF-8275 in 2009/2010 timeframe with no increase capacity or emissions and no change in regulatory status.
4. Elimination of 1,2-dichlorobenzene, isopropanol, diaminotoluene and/or 2,4-dinitrotoluene from the composition of all appropriate point source due to the shutdown of the Toluene Diisocyanate (TDI) and Diaminotoluene (TDA) processes.
5. Revision the fugitive emissions for the Offsites Area (Point Source RV), and
6. Revision to Point Source RZ emissions to reconcile all temporary containers used for maintenance or repair activities associated with the deepwell system and its associated tankage.

Proposed Permit

Permit 2420-V2 will be the renewal/modification Part 70 operating permit 2420-V1 for the Offsite Area.

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Permitted Air Emissions

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	0.18	0.18	-
SO ₂	0.15	0.15	-
NO _x	7.97	7.97	-
CO	1.01	1.01	-
VOC*	2.37	2.25	-0.12

***VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):**

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
1,2 - Dichlorobenzene	0.06	-	-0.06
2,4 - Dinitrotoluene	< 0.01	-	-<0.01
4,4 - Methylenebisbenzeneamine	< 0.01	<0.01	-
Acetonitrile	< 0.01	<0.01	-
Aniline	0.01	0.02	+0.01
Carbon tetrachloride	0.04	0.04	-
Chloroform	0.05	0.05	-
Benzene	0.21	0.20	-0.01
Chlorobenzene	0.91	0.90	-0.01
Diaminotoluene	< 0.01	-	-<0.01
Methanol	0.62	0.69	+0.07
Nitrobenzene	0.08	0.08	-
Ortho-Toluidine	<0.01	<0.01	-
Phenol	0.01	0.01	-
Total TAP's	1.99	1.99	-

Non-VOC TAP's:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
Ammonia	6.95	7.07	+0.12
Chlorine	<0.01	-	-<0.01
Dichloromethane	0.11	0.11	-
Total Non-VOC TAP's	7.06	7.18	+0.12

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IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

Applicability and Exemptions of Selected Subject Items

ID No:	Requirement	Notes
EQT0935 (RG)	LAC:III.2103 – Storage of Volatile Organic Compounds	DOES NOT APPLY – Vessel stores a VOC having a true vp < 1.5 psia at storage conditions. (LAC 33:III:2103.A)
	NSPS Subpart Kb – Standards of Performance for Storage Vessels for Volatile Organic Liquid (40 CFR 60.110b)	DOES NOT APPLY – Vessel capacity > 39,900 gallons (151 cubic meters and vapor pressure < 0.51 psia (3.5 kPa). (40 CFR 60.110b(b))
EQT0938 (RZ)	LAC 33:III.2153 – Limiting Volatile Organic Compound Emissions from Industrial Wastewater	EXEMPT – all equipment used in cleaning operation is temporary. (LAC 33:III.2153 (G)(7).
EQT0939 (R1)	LAC 33:III.1503 – Emission Standards for Sulfur Dioxide	EXEMPT – SO ₂ < 250 tpy (LAC 33:III.1503.C)
	LAC 33:III.Chapter 22 – Control of Emissions of Nitrogen (NO _x)	DOES NOT APPLY – Temporary portable internal combustion engine that is used less than six month/year. (LAC 33:III.2201.A)
	NSPS Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	DOES NOT APPLY – Temporary unit, meets the definition of nonroad engine under 40 CFR 1068.30
FUG0025 (RH)	LAC 33: III.2153 – Limiting Volatile Organic Compound Emissions from Industrial Wastewater	DOES NOT APPLY – Does not meet the definition of affected volatile organic compounds (VOC) wastewater. (LAC 33:III.2153. A)
	SOCMI MACT – General Provision (40 CFR 63.100), Subpart F	DOES NOT APPLY – This surface impoundment does not contain wastewater since the annual average concentration of Table 9 compounds is less than 5 ppm. (40 CFR 63.101 (b))

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ID No:	Requirement	Notes
FUG0026 (RV)	LAC 33:2122 / NSPS Subpart VV NESHAP/ (HON) Subparts F and H/ LAC 33:III.5109	EXEMPT – All equipment contains or contacts a fluid that is less than % by weight of organic HAPS and/or VOCs. (LAC 33:III.2121.B.4.a /40 CFR 60.481/ 40 CFR 63.161)
FUG0027 (RY)	LAC 33:III.2153 – Limiting Volatile Organic Compound Emissions from Industrial Wastewater	EXEMPT – Streams are not VOC wastewater by definition since the water is generated primarily from rainfall runoff and maintenance activities. (LAC 33:III.2153.A)
	SOCMI MACT – General provision (40 CFR 63.100), Subpart F	DOES NOT APPLY – The Strong Effluent Area is not a CMPU as defined 40 CFR 63.101
	NESHAP for Source Categories – Subpart F Maintenance Waste Water Requirements (40 CFR 63.105)	DOES NOT APPLY – The Strong Effluent Area does not produce wastewater and maintenance wastewater as defined 40 CFR 63.101
	SOCMI MACT – Certain Liquid Streams in Open Systems Within a Chemical Manufacturing Process Unit, Subpart G (40 CFR 63.100 and 40 CFR 63.149)	DOES NOT APPLY – The Strong Effluent Area is not a CMPU as defined 40 CFR 63.100; therefore does not meet all the criteria requirements under 40 CFR 63.149(a).

Prevention of Significant Deterioration/Nonattainment Review

There are no net emission increases of PSD applicable compounds above the significance level. Therefore, this project is exempted from PSD review.

Streamlined Equipment Leak Monitoring Program

This permit does not include a streamlined equipment leak monitoring program.

MACT Requirements

These regulations define maximum achievable control technology (MACT) standards for stationary source categories of hazardous air pollutants (HAPs). These HAPs are listed in the Clean Air Act Amendments of 1990. The facility will comply with all applicable MACT requirements.

Air Quality Analysis

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Dispersion Model(s) Used: ISC3

Pollutant	Time Period	Calculated Maximum Ground Level Concentration	Louisiana Toxic Air Pollutant Ambient Air Quality Standard or (National Ambient Air Quality Standard {NAAQS})
Dichloromethane	Annual	12.9 ug/m ³	212.77 ug/m ³
Ammonia	8 hour	612 ug/m ³	640 ug/m ³
Aniline	8 hour	19.9 ug/m ³	181 ug/m ³
Benzene	Annual	2.73 ug/m ³	12 ug/m ³
Carbon Tetrachloride	8 hour	0.74 ug/m ³	6.67 ug/m ³
Chlorine	8 hour	1.3 ug/m ³	35.7 ug/m ³
Chlorobenzene	8 hour	85 ug/m ³	1100 ug/m ³
Chloroform	Annual	0.2 ug/m ³	4.3 ug/m ³
Nitrobenzene	8 hour	6.48 ug/m ³	119 ug/m ³

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

V. PERMIT SHIELD

This permit does not include a permit shield.

VI. PERIODIC MONITORING

All periodic monitoring is conducted in accordance with state and federal regulations. See Specific Requirement of the draft Part 70 permit renewal and modification for monitoring requirements.

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VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide (H₂S) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nitrogen Oxides (NO_x) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane (CH₄), Ethane (C₂H₆), Carbon Disulfide (CS₂)

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: ≥ 10 tons per year of any toxic air pollutant; ≥ 25 tons of total toxic air pollutants; and ≥ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM₁₀ – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air

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Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO₂) – An oxide of sulfur.

Sulfuric Acid (H₂SO₄) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.